

Serial No.: 09/997,849
Group Art Unit: 2633
Examiner: David J. Lee

Amendment to the Claims

1 (Currently Amended). An optical burst-switched router, comprising:
an optical switch for routing data bursts ~~optical information~~ from an incoming optical transmission medium to one of a plurality of outgoing optical transmission media, wherein each of the outgoing optical transmission media can transmit the data burst over a plurality of channels;

circuitry for dynamically assigning a group identifier to each of the plurality of channels ~~channel~~;

circuitry for determining a group identifier associated with each data burst;

scheduling circuits each associated with a respective outgoing optical transmission medium, each scheduling circuit comprising:

one or more associative processors storing information indicative of times available for scheduling a data burst on said associated outgoing optical transmission medium;
and

circuitry for controlling said one or more associative processors to find an available time on one of a plurality of channels associated with the group identifier for the data burst ~~a predetermined group identifier~~.

2 (Original). The router of claim 1 wherein said incoming optical transmission medium and said outgoing optical transmission media comprise optical fibers.

3 (Original). The router of claim 1 wherein said one or more of said channels are assigned a group identifier to identify the channels being tested.

4 (Original). The router of claim 1 wherein said one or more of said channels are assigned a group identifier to identify the channels as failed channels.

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5 (Original). The router of claim 1 wherein said one or more of said channels are assigned a group identifier to identify the channels as reserved channels.

6 (Original). A method of routing information through an optical burst-switched router including an optical switch for routing optical information from an incoming optical transmission medium to one of a plurality of outgoing optical transmission media, wherein each of the outgoing optical transmission media can transmit data over a plurality of channels, comprising the steps of:

assigning group identifiers for respective groups of one or more channels;
scheduling data burst through said switch responsive to available time on one of a plurality of channels associated with a predetermined group identifier.

7 (Original). The method of claim 6 wherein said incoming optical transmission medium and said outgoing optical transmission media comprise optical fibers.

8 (Original). The method of claim 6 and further comprising the step of assigning a group identifier to a group of channels being tested.

9 (Original). The method of claim 6 and further comprising the step of assigning a group identifier to a group of failed channels.

10 (Original). The method of claim 6 and further comprising the step of assigning a group identifier to a group of reserved channels.

11 (New). An optical router, comprising:
an optical switch for routing data from an incoming optical transmission fiber to one of a plurality of outgoing optical transmission fibers, wherein each of the outgoing optical transmission fibers includes a plurality of data channels;
circuitry for dynamically assigning a group identifier to each of the plurality of data channels in each outgoing optical transmission fiber;

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circuitry for determining the group identifier associated with the data;
scheduling circuit for scheduling the data to one of the plurality of outgoing optical transmission fibers, wherein the scheduling circuit schedules the data to one of the plurality of data channels in the outgoing optical transmission fiber responsive to the group identifier associated with data channel and the data.

12 (New). The optical router of claim 11, wherein the circuitry for determining the group identifier associated with the data derives the group identifier of the data from a burst header associated with the data.

13 (New). The optical router of claim 12, wherein the scheduling circuit for scheduling the data to one of the plurality of outgoing optical transmission fibers comprises a plurality of dedicated scheduling circuits each associated with one of the plurality of outgoing transmission media.

14(New). The optical router of claim 13, wherein each dedicated scheduling circuit comprises:

one or more associative processors storing information indicative of times available for scheduling data on its associated outgoing optical transmission fiber; and
circuitry for controlling said one or more associative processors to find an available time on one of the plurality of data channels associated with the group identifier.